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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,094	12/21/2001	Chen Feng	ICM-P007	7470

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EXAMINER

DO, ANH HONG

ART UNIT PAPER NUMBER

2624

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/026,094

Applicant(s)

FENG, CHEN

Examiner

ANH H DO

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

2. Claims 1-15 are rejected under 35 U.S.C. 102(a) as being anticipated by Roustaei (U.S. Patent No. 5,777,314).

Regarding claims 1 and 7, Roustaei discloses:

- an image sensor (CCD 20 in Fig. 28);
- an illumination module coupled to the image sensor 20, the illumination module comprising an array of one reflector 132 that reflects light of a light source 130 (Fig. 28 and col. 7, lines 6-10), and collectively generate a uniform illumination pattern both for illuminating a target data area (i.e., a bar code area) (col. 7, lines 13-15), and providing visual aiming assistance (col. 22, lines 40-42, teaching assisting aiming the barcode symbol).

Regarding claims 2 and 8, Roustaei teaches:

- an opaque reflective surface with an aperture (col. 10, lines 21-24, teaching a reflector having an aperture; and col. 6, lines 65-67, teaching a reflector having a reflective surface), the light source 130 emits light onto the reflected surface of the reflector 132 and through the aperture onto the target area (i.e., the barcode area) (fig.

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28 and col. 10, lines 21-24), wherein the curvature and shape of the reflective surface determine a shape of the illumination pattern (col. 10, lines 10-19, teaching the shape of barcode).

Regarding claims 3 and 9, Roustaei teaches the curved surface (col. 9, lines 51-57) and sharp edges (col. 11, lines 1-5).

Regarding claims 4 and 10, Roustaei teaches the reflector 132 inherently comprises a transparent solid with a reflective internal surface (col. 7, lines 6-11), light from light source 130 enters the solid, is reflected by the reflective surface and exits through the solid onto the target area (i.e., the barcode) (Fig. 28, and col. 7, lines 1-12), wherein a curvature and a shape of the reflective surface inherently produce a shape of the illumination pattern (col. 10, lines 10-19).

Regarding claims 5 and 11, Roustaei teaches a curvature in the reflective surface optimizes the uniformity (col. 7, lines 13-15) and the sharp edges of the illumination pattern (col. 11, lines 1-50).

Regarding claims 6 and 12, Roustaei teaches the light source comprises an LED (col. 6, lines 8-14, teaching the light source consisting of 12 LEDs).

Regarding claim 13, since this claim recites similar components as in claims 1 and 7, the discussion of claims 1 and 7 apply hereto.

Regarding claims 14 and 15, Roustaei discloses:

- projecting an illumination pattern on a target image area (i.e., the barcode area) (col. 5, lines 52-56, teaching projecting illuminating beam onto the bar code), the illumination pattern comprising a shape and uniformity generated by an array of one

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reflector 132 coupled to an image sensor 130 (col. 7, lines 13-15), wherein the reflector reflects light of a light source 130 (Fig. 28 and col. 7, lines 6-10), wherein the illumination pattern provides both image illumination (col. 7, lines 13-15) and visual aiming assistance (col. 22, lines 40-42, teaching assisting aiming the barcode symbol);

- reading data from the target barcode area via an image sensor (col. 13, lines 33-36, teaching an imaging CCD array reading a target bar code area, (e.g., the high spatial resolution area)).

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANH H DO whose telephone number is 703-308-6720. The examiner can normally be reached on 5/4-9.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, DAVID K MOORE can be reached on 703-308-7452. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should

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you have questions on access to the Private PAIR system, contact the Electronic
Business Center (EBC) at 866-217-9197 (toll-free).

November 1, 2004.



AMY HONG DO
PRIMARY EXAMINER